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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,098	10/31/2003	Edward H. Overstreet	AB-379U	9707

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EXAMINER

GEDEON, BRIAN T

ART UNIT	PAPER NUMBER
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3766

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/698,098	OVERSTREET, EDWARD H.	
	Examiner	Art Unit	
	Brian T. Gedeon	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,11,12 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 4-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/16/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 4-19 are objected to because of the following informalities: A claim numbered as 3 is missing, and all subsequent claims are misnumbered. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 11, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. (US Patent no. 6,205,360) in view of Doyle, Sr. (US Patent no. 6,175,767).
4. In regard to claims 1, 11 and 16, Carter et al. describes a multichannel cochlear implant intended to produce a neural response with an electrode array 5 adapted for implantation in patient's inner ear used for applying electrical stimuli, col 5 lines 65-67. The electrode array 5 is also used to detect an evoked action potential (EAP), col 6 lines 15-17. EAPs are measured for one channel of the electrode array 5 at a time, col 6 lines 5-59, wherein "channels" comprise any number or combination of electrodes on the array 5. A threshold level is derived from the EAP response. Threshold levels are calculated for each stimulation channel, col 6 lines 60-62. Doyle, Sr. teaches that a

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strength-duration curve is used relate threshold intensity levels to stimulation parameters necessary for axon activation, col 12 lines 49-55. Carter et al. does not plot the threshold data, but however does store the threshold data in a table 23, col 7 lines 3-5, and is uses the to alter the stimulation level of a stimulation channel, col 5 lines 6-17 and col 6 lines 64-66. Therefore, in view of the teaching of Doyle, Sr., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Carter et al. to contour plot the threshold data stored in the patient storage table since it is well known to plot tabulated data in order to graphically depict variable relationships.

5. In regard to claims 2, 4, 17 and 18, Carter et al. describe the stimulations as being delivered by means of a number of electrode channels, and that channels can be made of up of any combination of electrodes comprising the array 5. However, Carter et al. does not describe how the electrical stimuli are delivered to each subsequent combination of channels. However, the Examiner considers that it would not be beyond one of ordinary skill in the art to control how the electrical energy stimuli is applied to groupings of electrodes, since it would it involve only routine programming of a pulse generator. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made.

6. Claims 5-7, 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. (US Patent no. 6,205,360) in view of Doyle, Sr. (US Patent no. 6,175,767), further in view of Stecker et al. (US Patent no. 6,915,166).

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7. In regard to claims 5, 6 and 19, Carter et al. in view of Doyle, Sr. describes the invention substantially as claimed, except for Stecker et al. measures the amplitude of the evoked response to a set of stimuli at different stimulation levels for one of the electrodes in the said prosthesis, and then calculates a value relating the evoked response to the stimulus levels. The Examiner interprets this "value" relating the evoked action potential response to the applied stimuli to be a threshold value, since this "value" determines effectiveness of the stimuli and electrodes, col 2 lines 21-26. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to plot evoke action potential response versus stimulus level since it is taught by Stecker et al. that the relation between the two determines the effectiveness of the electrodes themselves and the applied stimuli.

8. In regard to claim 7, Carter et al. in view of Doyle, Sr. describes the invention substantially as claimed, except for the smoothing techniques to remove discontinuities in the acquired data set. Stecker et al. describes removing any outliers before the collected data was plotted and curved fitted. It is recognized by the Examiner that outlier removal is a form of data smoothing, and considers that it would have been obvious to one of ordinary skill in the art at the time the invention was made to do so in order to remove noise artifact or saturation effect from the data set.

9. In regard to claim 12, Carter et al. in view of Doyle, Sr. describes the invention substantially as claimed, except for measuring the peak-to-peak amplitude of the measured ECAP. Stecker et al. describes a method for determining the relative responsiveness of electrodes on an intracochlear prosthesis, col 1 lines 1-67 through

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col 2 lines 1-5. The method described by Stecker et al. measures the peak-to-peak amplitude of the measured evoke response, col 2 lines 5-7. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply this step since Stecker et al explicitly teach it.

Allowable Subject Matter

10. Claims 7-10 and 13-15 and objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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12. Claim 1-6 and 11-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/698,097. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a system and a method for a cochlear implant that determines a threshold from a detected evoked compound action potential, and provides a contour plot to define the threshold stimulation levels for each group of selected electrodes.

13. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Van Den Honert et al. (US Patent no. 6,751,505).

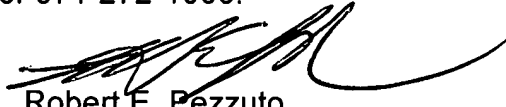
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Gedeon whose telephone number is (571) 272 3447. The examiner can normally be reached on M-F 8:30-5:00.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272 6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian T. Gedeon
Patent Examiner
Art Unit 3766



Robert E. Pezzuto
Supervisory Patent Examiner
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BTG